In the

United States Court of Appeals

For the Seventh Circuit

No. 16-2492

FEDERAL TRADE COMMISSION and STATE OF ILLINOIS,
Plaintiffs-Appellants,

v.

ADVOCATE HEALTH CARE NETWORK, et al.,
Defendants-Appellees.

Appeal from the United States District Court for the
Northern

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RGUED AUGUST 19, 2016 — DECIDED OCTOBER 31, 2016

Before WOOD, *Chief Judge*, and BAUER and HAMILTON, *Circuit Judges*.

HAMILTON, *Circuit Judge*. This horizontal merger case under the Clayton Act depends on proper definition of geographic markets for hospitals. Defendants Advocate Health Care Network and NorthShore University HealthSystem both operate hospital networks in Chicago's northern suburbs. They propose to merge. Section 7 of the Clayton Act forbids asset acquisitions that may lessen competition in any "section

of the country." 15 U.S.C. § 18. The Federal Trade Commission and the State of Illinois sued in district court to enjoin the proposed Advocate-NorthShore merger while the Commission considers the issue through its ordinary but slower administrative process. See 15 U.S.C. § 53(b); 15 U.S.C. § 26; *Hawaii v. Standard Oil Co. of California*, 405 U.S. 251, 260–61 (1972).

To obtain an injunction, plaintiffs had to demonstrate a likelihood of success on the merits. 15 U.S.C. § 53(b); 15 U.S.C. § 26;

I. *The Proposed Merger and the District Court Proceedings*

In the United States today, most hospital care is bought in two stages. In the first, which is highly price-sensitive, insurers and hospitals negotiate to determine whether the hospitals will be in the insurers' networks and how much the insurers will pay them. Gregory Vistnes, *Hospitals, Mergers, and Two-Stage Competition*, 67 Antitrust L.J. 671, 674–75 (2000). In the second stage, hospitals compete to attract patients, based primarily on non-price fa5(s)850(g)1(ers,)110(r)-6-

Tenn calculated that for 48 percent of patients in the North Shore Area, both their first and second choice hospitals were inside the Commission's proposed market.

Once he identified the relevant geographic market, Dr. Tenn used the Herfindahl-Hirschman Index, a common method for assessing a transaction's competitive effects, to evaluate the merger's effects on the market's concentration. He found that for both the eleven-hospital proposed market and the fifteen-hospital market, the proposed Advocate-NorthShore merger would result in a presumptively unlawful increase in market concentration.

The defendants called their own experts, including economist Dr. Thomas McCarthy, who criticized the criteria Dr. Tenn used to select his candidate market. Dr. McCarthy argued that academic medical centers are substitutes for local hospitals because patients seek the same treatments at both hospital types. He also contended that the candidate market should include competitors to either Advocate or NorthShore, not just competitors to both. A competitor to either system, he reasoned, would also compete with and constrain the merged system.

The district court rejected Dr. Tenn's analysis, found that plaintiffs had not shown a likelihood of success on the merits, and denied an injunction. *Advocate Health Care*, 2016 WL 3387163, at *5. Its analysis focused on Dr. Tenn's candidate-market criteria and echoed Dr. McCarthy's criticisms of those criteria. *Id.* at *4–5. There was, the court said, no economic basis for distinguishing between academic medical centers and local hospitals and no reason to think a competitor had to constrain both Advocate and NorthShore to be in the geographic market. *Id.* The court also criticized Dr. Tenn's assumption

that patients generally insist on access to local hospitals, calling the evidence on that point "equivocal" and pointing to the 52 percent of patients whose second-choice hospitals were outside the proposed market. *Id.* at *4 n.4. At several points in the opinion, the court implied that Dr. Tenn's analysis was circular, saying that he "assume[d] the answer" to the geographic market question. *Id.* at *4–5.

We review the district court's legal determinations *de novo*, its factual findings for clear error, and its ultimate decision for abuse of discretion. *Federal Trade Comm'n v. Penn State Hershey Medical Center*, — F.3d —, No. 16-2365, 2016 WL 5389289, at *1–2 (3d Cir. Sept. 27, 2016) (reversing denial of injunction to stop hospital merger); *Abbott Laboratories v. Mead Johnson & Co.*, 971 F.2d 6, 12–13 (7th Cir. 1992) (describing standard of review for preliminary injunction decisions generally); *Federal Trade Comm'n v. Elders Grain, Inc.*, 868 F.2d 901, 903–04 (7th Cir. 1989) (affirming Section 7 injunction).

II. *Relevant Antitrust Markets*

Section 7 of the Clayton Act makes it unlawful to "acquire … the assets of another person … where in any line of commerce … in any section of the country, the effect of such acquisition may be substantially to lessen competition… ." 15 U.S.C. § 18. The Act "deal[s] with probabilities," not "absolute certainties." *Ekco Products Co. v. Federal Trade Comm'n*, 347 F.2d 745, 752 (7th Cir. 1965); accord, *Brown Shoe*, 370B

As in many other hospital merger cases, the parties here agree that the product market here is just such a cluster: inpatient general acute care services—specifically, those services sold to commercial health plans and their members. See *Penn State Hershey*, — F.3d at —, 2016 WL 5389289, at *5 (parties stipulated); *Federal Trade Comm'n v. Tenet Health Care Corp.*, 186 F.3d 1045, 1051–52 (8th Cir. 1999) (same); *Federal Trade Comm'n v. Freeman Hospital*, 69 F.3d 260, 268 (8th Cir. 1995) (same). That market is a cluster of medical services and procedures that require admission to a hospital, such as abdominal surgeries, childbirth, treatment of serious infections, and some emergency care.

B. *The Geographic Market*

The dispute here is about the relevant geographic market. The relevant geographic market is "where … the effect of the merger on competition will be direct and immediate." *Philadelphia National Bank*, 374 U.S. at 357. It must include the "sellers or producers who have the … 'ability to deprive each other of significant levels of business.'" *Rebel Oil Co. v. Atlantic Richfield Co.*, 51 F.3d 1421, 1434 (9th Cir. 1995), quoting *Thurman Industries, Inc. v. Pay 'N Pak Stores, Inc.*, 875 F.2d 1369, 1374 (9th Cir. 1989). "Congress prescribed a pragmatic, factual approach to the definition of the relevant market and not a formal, legalistic one." *Brown Shoe*, 370 U.S. at 336. The market must "'correspond to the commercial realities' of the industry." *Id.*, quoting *American Crystal*

1. *Geographic Markets in General*

Since at least 1982, the Commission has used the "hypo-

the 1970s from studies of coal and beer markets, the test uses product or customer movement to define geographic markets. Cory S. Capps, *From Rockford to Joplin and Back Again: The Impact of Economics on Hospital Merger Enforcement*, 59 Antitrust Bull. 443, 450 (2014); Kenneth G. Elzinga & Thomas F. Hogarty, *The Problem of Geographic Market Delineation in Antimerger Suits*, 18 Antitrust Bull. 45, 73–74 (1973); Cory S. Capps et al., *The Silent Majority Fallacy of the Elzinga-Hogarty*

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(and other) factors differently. Capps et al., *supra*, at 12 ("The high degree of heterogeneity in the taste for hospital attributes and in willingness to travel highlights the key point that hospitals offer a differentiated product to a segmented market."). For example, some patients will be willing to travel to see a particular specialist. See Elzinga & Swisher, *supra*, 18 Int'l J. of Economics of Business at 137–38 (giving a similar example). Others will not. That means that, as Dr. Elzinga

practicably go" in response to a price increase. *Id.* at 270–71. Four years later, the Eighth Circuit embraced the test, rejecting another Commission-proposed market in part because "over twenty-two percent of people … already use hospitals outside the … proposed market." *Tenet Health Care*, 186 F.3d at 1053.

That reliance produced relatively large geographic markets in hospital merger cases. The Commission's proposed market in *Freeman Hospital*, for example, covered a 27-mile radius around Joplin, Missouri. 69 F.3d at 268. In *Butterworth Health*, 946 F. Supp. at 1291, the Commission proposed a market covering Grand Rapids, Michigan and the 30 miles surrounding that city. *Tenet Health* rejected as too narrow a market 100 miles across in Missouri. 186 F.3d at 1052–53. And *Mercy Health* relied on patient movement to argue that hospitals 70 to 100 miles away from the defendant hospitals were viable competitors. 902 F. Supp. at 971–72, 979–80. By way of comparison, in this case, 80 percent of patients in NorthShore's service area drive 20 minutes or less (and 15 miles or less) to reach their hospital of choice.

As economists have identified the limits of the Elzinga-Hogarty test, courts and the Commission have begun to adjust their approaches to the problem. In *Evanston Northwestern*, the Commission heard testimony from Dr. Elzinga about those limits and concluded that patient movement was at best "one potentially very rough benchmark," to be used "in the context of evaluating other types of evidence." 2007 WL 2286195, at *66; see also *Penn State Hershey*, — F.3d at —, 2016 WL 5389289, at *6–7, *18 (reversing denial of preliminary injunction, in part because district court relied on elements of Elzinga-Hogarty test).

That adjustment is necessary. If the analysis uses geographic markets that are too large, consumers will be harmed because the likely anticompetitive effects of hospital mergers will be understated. *Penn State Hershey*, — F.3d at —, 2016 WL 5389289, at *6 ("empirical research demonstrated that utilizing patient flow data to determine the relevant geographic market resulted in overbroad markets with respect to hospitals"); *Evanston Northwestern*, 2007 WL 2286195, at *65–66 (finding persuasive Dr. Elzinga's testimony that "application of the [Elzinga-Hogarty] test to patient flow data would identify overly broad geographic markets"); see also Cory Capps & David Dranove, *Hospital Consolidation and Negotiated PPO Prices*, 23 Health Affairs 175, 179 (2004) ("most consolidating hospitals raise prices by more than the median price increase in their markets"); Leemore S. Dafny, *Estimation and Identification of Merger Effects: An Application to Hospital Mergers* 26 (Nat'l Bureau of Econ. Research, Working Paper No. 11673, 2005) ("there is conclusive evidence that mergers of independent hospitals can lead to large increases in area prices"); Martin Gaynor & Robert Town, *The Impact of Hospital Consolidation – Update*, Technical Report (Robert Wood Johnson Foundation/The Synthesis Project, Princeton, N.J.), June 2012, at 2 ("Hospital mergers in concentrated markets generally lead to significant price increases.").

For example, in 2001 the Northern District of California refused to enjoin a hospital merger, relying in part on patient movement data. *California v. Sutter Health System*, 130 F. Supp. 2d 1109, 1131–32, 1137 (N.D. Cal. 2001). In 2011, a follow-up study found that the cheaper of the two hospitals raised its prices by 29 to 72 percent, much more than a control group had. Tenn, *supra*, 18 Int'l J. of Economics of Business at 75–76. Other merger case studies produced similar results. See

Aileen Thompson, *The Effect of Hospital Mergers on Inpatient Prices: A Case Study of the New Hanover-Cape Fear Transaction*, 18 Int'l J. of Economics of Business 91, 99 (2001) (finding that, following a hospital merger, two insurers experienced substantial price increases, one a large decrease, and one a normal price change); Michael G. Vita & Seth Sacher, *The Competitive Effects of Not-For-Profit Hospital Mergers: A Case Study*, 49 J. of Industrial Economics 63, 65, 82 (2001) (finding that after a merger, both the merged entity and its remaining competitor raised prices).

NorthShore's own history makes the point. NorthShore was create

III. *Analysis*

We review the district court's decision in this case in light of this history. As noted, we review the court's legal determinations *de novo*, its factual findings for clear error, and its ultimate decision for abuse of discretion. *Penn State Hershey*, — F.3d at —, 2016 WL 5389289, at *2; *Abbott Laboratories*, 971 F.2d at 12–13. We find that the district court made clear factual errors. Its central error was its misunderstanding of the hypothetical monopolist test: it overlooked the test's results and mistook the test's iterations for logical circularity. Even if the court's focus on the candidate market had been correct, its

The district court seems to have mistaken those iterations for circularity. It criticized Dr. Tenn's candidate market for "assum[ing] the answer" to the market definition question. *Advocate Health Care*, 2016 WL 3387163, at *4–5. But in fact, the candidate market offers a hypothetical answer to that question; the hypothetical monopolist analysis then tests the hypothesis and adjusts the market definition if the results require it. That is not circular reasoning.

B. *Academic Medical Centers*

When Dr. Tenn proposed a candidate

medical center differentiated between "community hospitals" and "an Academic Medical Center" in terms of the complexity of the services provided. Another insurance executive explained that NorthShore and Advocate hospitals were not academic medical centers. That testimony provides an obvious and sound basis for distinguishing between academic medical centers and other hospitals like those operated by Advocate and NorthShore.

C. *Patient Preference for Local Hospitals*

Before Dr. Tenn chose a candidate market, he determined that patients generally choose hospitals close to their homes. The district court called the evidence on that point "equivocal," citing testimony that workplace locations and outpatient relationships also influence patient choices. *Advocate Health Care*, 2016 WL 3387163, at *4. But most of the cited testimony addressed medical care broadly, not inpatient acute care specifically. For instance, one insurance executive testified that Chicago area consumers use "services" close to both their homes and their workplaces. Similarly, another witness explained that employees choose providers based on where they live, work, and have relationships with doctors, but that witness was speaking about "people Y consuming benefits" generally, not about hospital choice in particular.

When it came to hospital care, the evidence was not equivocal on Dr. Tenn's central point. As one insurance executive put it: "Typically [patients] seek [hospital] care in their own communities." The evidence on that point is strong, not equivocal. For example, 73 percent of patients living in plaintiffs' proposed market receive hospital care there. Eighty percent of those patients drive less than 20 minutes or 15 miles to their chosen hospital. Ninety-five percent of those patients

drive 30 miles or less—the north-to-south length of plaintiffs' proposed market—to reach a hospital. That evidence that many patients care about convenience is consistent with what we said in *Rockford Memorial*: "for the most part hospital services are local." 898 F.2d at 1285. That is consistent with retail markets generally, at least where the seller (hospital) and buyer (patient) must come face to face. See *Philadelphia National Bank*, 374 U.S. at 358.

D. *The Silent Majority Fallacy*

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first choice hospital were unavailable, would seek care outside the proposed market, and the proportion (7.2–29.2 percent) of patients who, if their first choice hospital were unavailable, would divert to Northwestern Memorial Hospital, an academic medical center outside Dr. Tenn's proposed market.[4]

If patients were the relevant buyers in this market, those numbers would be more compelling since diversion ratios indicate which hospitals patients consider substitutes. But as we have explained, insurers are the most relevant buyers. Insurers must consider both whether employers would offer their plans and whether employees would sign up for them. "[E]mployers generally try to provide all of their employees

at least one attractive option," and may not offer even a broadly appealing plan if it lacks services in a particular region. Vistnes, *supra*, 67 Antitrust L.J. at 678. As a result, measures of patient substitution like diversion ratios do not translate neatly into options for insurers. The district court erred in assuming they did.[5]

The hospitals correctly point out that, strictly speaking, that reasoning is not the same as the silent majority fallacy. The silent majority fallacy treats present travel as a proxy for post-merg att. Vsld Fl. l19(e)ike diverson rati4(ts)7.9(p11((h)6(e(tr)-1(i)15(on)6(l)-5((e)3(

who need them to offer commercially viable products to customers who are reluctant to travel farther for general acute hospital care.

That flaw runs through the district court's decision. The court focused on identifying hospitals that compete with those in the Commission's proposed market. But the relevant geographic market does not include every competitor. It is the "area of *effective* competition," *E. I. du Pont*, 353 U.S. at 593 (emphasis added) (citation omitted), the place where the "effect of the merger on competition will be direct and immediate," *Philadelphia National Bank*, 374 U.S. at 357. It includes the competitors that discipline the merging hospitals' prices. *AD/SAT*, 181 F.3d at 228; *Rebel Oil*, 51 F.3d at 1434. The geographic market question asks in essence, how many hospitals can insurers convince most customers to drive past to save a few percent on their health insurance premiums? We should not be surprised if that number is very small. Plaintiffs have made a strong case that it is.

We REVERSE the district court's denial of a preliminary injunction and REMAND for further proceedings consistent with this opinion. The merger shall remain enjoined pending the district court's reconsideration of the preliminary injunction motion.